

REMARKS/ARGUMENTS

In the advisory action, the Examiner objected to the terms "collectively" and "exactly complementary to each base" as being possibly new matter. Applicants disagree with this position. These terms were introduced in an attempt at compromise in response to the Examiner's comments regarding alleged lack of clarity. In applicants' view the claims already met the statutory requirements for definiteness, but introduced the amendments in the spirit of compromise. However, because the Examiner has questioned these terms as being new matter, applicants have withdrawn them and will explain why the original claims meet the statutory requirements. The amendments that are introduced with this response serve only to provide improved antecedent basis, and do not raise any issues of new matter.

Claims 82-87 and 90-94 stand rejected under 35 USC 112, second paragraph for alleged indefiniteness. In particular, the Examiner takes the view that the recital in claim 82 that probes overlap a reference sequence of at least 50 bases requires that the probes in the probe set be longer than the reference sequence and thus in conflict with the prior recital in the claim that the probes be exactly complementary to the reference sequence.

Although in some contexts the term "spanning" may include probes whose aggregate length exceeds that of a reference sequence, applicants do not agree that the term necessarily requires that the aggregate length of overlapping probes be longer than the reference sequence. In the context of claim 82 and the prior recital that the different probes are exactly complementary to a reference sequence, it is apparent that the term "spanning" refers to overlapping probes whose aggregate length is the same as that of the reference sequence. As such, there is no conflict with the prior recital in the claim that the probes are perfectly complementary to the reference sequence. Applicants note for the record that the first probe set of claim 82 is defined using the term "comprising" and is thus open to the presence of probes beyond the different probes specifically recited in the claim.

In the advisory action, the Examiner alleges that the phrase "each probe exactly complementary to a subsequence of the reference sequence" is inconsistent with the phrase "the different probes of the first probe set are overlapping probes spanning the reference sequence

term." However, the two phrases are consistent. The first phrase is describing a property of *each probe*. The second phrase is describing a property of *the different probes of the first probe set*. If *each probe* is perfectly complementary to a subsequence of the reference sequence, then *the different probes* (plural) span the reference sequence.

The Examiner also takes the view that the phrase "*each probe* exactly complementary to a subsequence of the reference sequence, the probe *including a single interrogation position*" is inconsistent with the phrase "*the different probes* in the first probe set have *at least three interrogation positions*." Again, the two phrases are consistent. The first phrase is referring to a property of *each probe* of the first probe set. The second phrase is referring to a property of *the different probes in the first probe set*. If, each probe in the first probe set has a single interrogation position, and there are at least three probes in the first probe set, then the different probes of the first probe set have at least three interrogation positions.

The definiteness requirement does not require absolute definiteness, only that persons skilled in the art are reasonably apprised of the scope of the claim. *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 225 USPQ 633, 641 (Fed. Cir. 1985). "[I]f the language used by applicant satisfies the statutory requirement of 35 USC 112, second paragraph, but the examiner merely wants the applicant to improve the clarity or precision of the language used, the claims must not be rejected under 35 USC 112, second paragraph, rather the examiner should suggest improved language to the applicant." MPEP 2173.02.

Here, as explained above, when the full wording of the claim is taken into account, the phrases the Examiner has queried are consistent. In particular, one antecedent term "each probe" alerts the reader that the claim is referring to an individual probe, and another antecedent term, "the different probes" alerts the reader that the claims is referring to the probes collectively. Only if these different antecedent terms are ignored can one come up with the contradictory interpretation proposed by the Examiner. Section 112, second paragraph requires only reasonable precision and does not require applicant to provide language expressly to exclude a self-contradictory interpretation of the claims that can be arrived at only by disregarding express claim language. If the Examiner merely wants the applicant to improve the

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clarity or precision of the language used, applicants are certainly willing to consider any suggestions. However, applicants maintain that the skilled person would have no difficulty understanding the scope of the claims as written. Therefore, the rejection under 35 USC 112, second paragraph should be withdrawn.

The Examiner makes analogous comments regarding claims 85 and 90. The comments regarding probes spanning a reference sequence are not relevant to claim 85 because this claim does not contain this phrase. Otherwise, applicants respond as above.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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